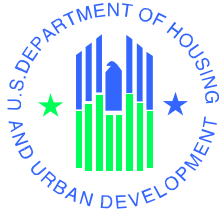# MAINTENANCE

MANUAL

Public and Indian Housing (PIH)
Real Estate Assessment Center (REAC)
Resident Assessment Subsystem (RASS)
Releases 8.4.0.0

U.S. Department of Housing and Urban Development

December 8, 2004

Revision Sheet

Revision No.	Date	Revision Description
1.0	11/16/2004	Initial Document.
2.0	11/19/2004	Quality Assurance Review
3.0	12/07/2004	Client Review
4.0	12/08/2004	Final Version

	Maintenance Manual Authorization Memorandum

I have carefully assessed the Maintenance Manual for the Resident Assessment Subsystem (RASS) Release 8.4.0.0. This document has been completed in accordance with the requirements of the HUD System Development Methodology.

MANAGEMENT CERTIFICATION - Please check the appropriate statement.

_____ The document is accepted.

_____ The document is accepted pending the changes noted.

_____ The document is not accepted.

We fully accept the changes as needed improvements and authorize initiation of work to proceed. Based on our authority and judgment, the continued operation of this system is authorized.

_____   _____
Delton Nichols   DATE
RASS Project Manager

_____   _____
Yangja Lee   DATE
RASS IT Manager

MAINTENANCE MANUAL

TABLE OF CONTENTS

1.0   GENERAL INFORMATION

1.0 GENERAL INFORMATION

The RASS Release 8.4.0.0 Maintenance Manual outlines essential operating environment, security, control requirements, and technical information that is necessary for system maintenance on new and modified functionality.

1.1 System Overview

RASS supports the Customer Service and Satisfaction Survey, which is the fourth indicator in HUD's Public Housing Assessment System (PHAS) Rule. For the first time, resident satisfaction is objectively measured and counted in HUD's evaluation of PHAs.

The following table identifies the system environment for RASS Release 8.4.0.0.

System Environment	
System	Real Estate Assessment Center System (REACS)
Subsystem	Resident Assessment Subsystem (RASS).
Sponsor	Public and Indian Housing – Real Estate Assessment Center (REAC)
PCAS	00307680
System Code	P089
System Category	Non-major
Operational Status	Operational
System Environment	Web Based
Requirements	Quality Software Services, Inc. (QSSI)
Design	QSSI
Development	QSSI
System and Integration Testing	QSSI
User Acceptance Testing	HUD RASS Client Team
Deployment	QSSI with REAC DCG (Paradigm Soln./ Booz-Allen & Hamilton)
Maintenance	QSSI

The following table identifies and briefly describes the different users of RASS.

User Environment	
REAC RASS Business Support Team	The REAC RASS Business Support Team uses RASS to view PHA and development-level scoring and certification reports and Multifamily Survey result information. The team also uses the system to complete the various processes (Unit Address Sampling; Implementation Plan; Survey and Follow-up Plan Scoring; RASS Score Approval) required during resident assessment.
Public Housing Agency (PHA)	PHAs use RASS to participate annually in the Resident Assessment process. PHAs certify their unit addresses, complete an Implementation Plan for resident notification about the annual resident survey process, and complete a Follow-up Plan outlining sources of funding and dates to be completed for required areas (low-scoring survey sections) identified by the resident survey results. PHAs may also use the system to view survey result and resident response rate information.

User Environment	
Survey Administrator	After the sampling program has generated a file of units to be surveyed, RASS downloads the sample file to the Survey Administrator. The Survey Administrator distributes the RASS survey to the units indicated in the sample file. Once the Survey Administrator collects and analyzes survey data, the survey results and response rate information are uploaded in RASS from the Survey Administrator so that PHAs and Multifamily Owners/Agents may view this information.
Multifamily (MF) Owners/Agents	MF Owners/Agents use RASS to view survey result information for their assigned properties.
Other HUD Users (includes HUD PIH Field Offices)	All other HUD users have read-only access to RASS in order to review PHA and Multifamily Housing development or property level survey result information.

1.2   Project References

The following documents are available to provide a comprehensive understanding of the resident assessment process. Most documents are available via the REAC Document Library. Additionally, several of the documents listed below are available through the PHA Resident Assessment Internet site at *http://www.hud.gov/offices/reac/products/prodrass.cfm*

Release 8.4.0.0
"RASS Release 8.4.0.0 Training Plan", QSSI, 08/20/2004
"RASS Release 8.4.0.0 System-Subsystem Specifications", QSSI, 08/20/2004
"RASS Release 8.4.0.0 Program Specifications", QSSI, 08/18/2004
"RASS Release 8.4.0.0 Database Specification", QSSI, 08/20/2004
"RASS Release 8.4.0.0 Unit Test Plan", QSSI, 09/02/2004
"RASS Release 8.4.0.0 Data Requirements Document", QSSI, 07/20/2004
"RASS Release 8.4.0.0 Functional Requirements Document", QSSI, 07/20/2004
"RASS Release 8.4.0.0 System Support & Acquisition Plan", QSSI, 07/20/2004
"RASS Release 8.4.0.0 System Security & Privacy Plan", QSSI, 07/20/2004
"RASS Release 8.4.0.0 Needs Statement", QSSI, 06/30/2004
"RASS Release 8.4.0.0 Project Plan", QSSI, 06/30/2004
"RASS Release 8.4.0.0 Feasibility Study", QSSI, 06/30/2004
"RASS Release 8.4.0.0 Cost/Benefit Analysis", QSSI, 06/30/2004
"RASS Release 8.4.0.0 System Decision Paper", QSSI, 06/30/2004
"RASS Release 8.4.0.0 Risk Analysis", QSSI, 06/30/2004

Release 8.3.0.0
"RASS Release 8.3.0.0 User's Manual", QSSI, 06/11/04
"RASS Release 8.3.0.0 Maintenance Manual", QSSI, 06/11/04
"RASS Release 8.3.0.0 Operations Manual", QSSI, 06/11/04

Release 8.3.0.0
"RASS Release 8.3.0.0 System Test Results and Evaluation Report", QSSI, 4/15/04
"RASS Release 8.3.0.0 Validation, Verification, and Testing Plan", QSSI, 03/16/04
"RASS Release 8.3.0.0 Training Plan", QSSI, 03/16/04
"RASS Release 8.3.0.0 System-Subsystem Specifications", QSSI, 03/16/04
"RASS Release 8.3.0.0 Program Specifications", QSSI, 03/16/04
"RASS Release 8.3.0.0 Database Specification", QSSI, 03/16/04
"RASS Release 8.3.0.0 Unit Test Plan", QSSI, 03/09/04
"RASS Release 8.3.0.0 Data Requirements Document", QSSI, 12/19/03.
"RASS Release 8.3.0.0 Functional Requirements Document", QSSI, 12/19/03.
"RASS Release 8.3.0.0 System Support & Acquisition Plan", QSSI, 12/19/03.
"RASS Release 8.3.0.0 System Security & Privacy Plan", QSSI, 12/19/03.
"RASS Release 8.3.0.0 Needs Statement", QSSI, 12/09/03.
"RASS Release 8.3.0.0 Project Plan", QSSI, 12/09/03.
"RASS Release 8.3.0.0 Feasibility Study", QSSI, 12/09/03.
"RASS Release 8.3.0.0 Cost/Benefit Analysis", QSSI, 12/09/03.
"RASS Release 8.3.0.0 System Decision Paper", QSSI, 12/09/03.
"RASS Release 8.3.0.0 Risk Analysis", QSSI, 12/09/03.

Release 8.2.0.0
"RASS Release 8.2.0.0 Project Plan", QSSI, 10/09/03.
"RASS Release 8.2.0.0 Test Results and Evaluation Report", QSSI, 11/21/03.
"RASS Release 8.2.0.0 Functional Requirements Document", QSSI, 10/21/03.
"RASS Release 8.2.0.0 Program Specifications", QSSI, 11/14/03.
"RASS Release 8.2.0.0 System Specifications Document", QSSI, 10/21/03.
"RASS Release 8.2.0.0 Unit Test Plan", QSSI, 10/20/03.

Release 8.0.0.0 & 8.1.0.0
"RASS Releases 8.0.0.0 & 8.1.0.0 System Specifications Document", QSSI, 04/30/03.
"RASS Releases 8.0.0.0 & 8.1.0.0 Program Specifications Document", QSSI, 04/30/03.
"RASS Releases 8.0.0.0 & 8.1.0.0 Validation and Verification Plan", QSSI, 04/30/03.
"RASS Releases 8.0.0.0 & 8.1.0.0 Training Plan", QSSI, 04/30/03.
"RASS Releases 8.0.0.0 & 8.1.0.0 Database Specifications Document", QSSI, 04/30/03.
"RASS Releases 8.0.0.0 & 8.1.0.0 Data Requirements Document", QSSI, 03/18/03.
"RASS Releases 8.0.0.0 & 8.1.0.0 Functional Requirements Document", QSSI, 03/18/03.
"RASS Releases 8.0.0.0 & 8.1.0.0 System Support & Acquisition Plan", QSSI, 03/18/03.
"RASS Releases 8.0.0.0 & 8.1.0.0 System Security & Privacy Plan", QSSI, 03/18/03.
"RASS Release 8.0.0.0 Needs Statement", QSSI, 01/10/03.
"RASS Release 8.0.0.0 Project Plan", QSSI, 01/10/03.
"RASS Release 8.0.0.0 Feasibility Study", QSSI, 01/10/03.
"RASS Release 8.0.0.0 Cost/Benefit Analysis", QSSI, 01/10/03.
"RASS Release 8.0.0.0 System Decision Paper", QSSI, 01/10/03.
"RASS Release 8.0.0.0 Risk Analysis", QSSI, 01/10/03.

Release 7.1.0.0

"RASS Release 7.1.0.0 User's Manual", Accenture, 01/25/2002.
"RASS Release 7.1.0.0 Integration Test Results and Evaluation Report", Accenture, 01/25/2002.
"RASS Release 7.1.0.0 System Test Results and Evaluation Report", Accenture, 01/25/2002.
"RASS Release 7.1.0.0 Release Notes", Accenture, 01/22/2002.
"RASS Release 7.1.0.0 Test Plan", Accenture, 12/18/2001.
"RASS Release 7.1.0.0 Validation, Verification, and Testing Plan", Accenture, 12/11/2001.
"RASS Release 7.1.0.0 System/Subsystem Specifications", Accenture, 11/15/2001.
"RASS Release 7.1.0.0 Database Specifications", Accenture, 11/15/2001.
"RASS Release 7.1.0.0 Program Specifications", Accenture, 11/15/2001.
"RASS Release 7.1.0.0 System Support and Acquisition Plan", Accenture, 11/06/2001.
"RASS Release 7.1.0.0 Functional Requirements Document", Accenture, 11/06/2001.
"RASS Release 7.1.0.0 Data Requirements Document", Accenture, 11/06/2001.
"RASS Release 7.1.0.0 System Security and Privacy Plan", Accenture 11/06/2001.
"RASS Release 7.1.0.0 Needs Statement", Accenture, 10/22/01.
"RASS Release 7.1.0.0 Project Plan", Accenture, 10/22/01.
"RASS Release 7.1.0.0 Feasibility Study", Accenture, 10/22/01.
"RASS Release 7.1.0.0 Cost/Benefit Analysis", Accenture, 10/22/01.
"RASS Release 7.1.0.0 Risk Analysis", Accenture, 10/22/01.

Release 7.0.0.0
"RASS Release 7.0.0.0 User's Manual", Accenture, 09/21/2001.
"RASS Release 7.0.0.0 System Decision Paper", Accenture, 09/21/01.
"RASS Release 7.0.0.0 Maintenance Manual", Accenture, 09/21/2001.
"RASS Release 7.0.0.0 Operations Manual", Accenture, 09/21/2001.
"RASS Release 7.0.0.0 Installation and Conversion Plan", Accenture, 09/21/2001.
"RASS Release 7.0.0.0 Integration Test Results and Evaluation Report", Accenture, 09/21/2001.
"RASS Release 7.0.0.0 System Test Results and Evaluation Report", Accenture, 08/30/3001.
"RASS Release 7.0.0.0 Release Notes", Accenture, 08/08/2001.
"RASS Release 7.0.0.0 Test Plan", Accenture, 07/19/2001.
"RASS Release 7.0.0.0 Training Plan", Accenture, 06/20/2001.
"RASS Release 7.0.0.0 Validation, Verification, and Testing Plan", Accenture, 06/20/2001.
"RASS Release 7.0.0.0 System/Subsystem Specifications", Accenture, 06/08/2001.
"RASS Release 7.0.0.0 Database Specifications", Accenture, 06/08/2001.
"RASS Release 7.0.0.0 Program Specifications", Accenture, 06/08/2001.
"RASS Release 7.0.0.0 Project Schedule/ Workplan", Accenture, 05/31/2001.
"Accenture Quality Control Plan", Accenture, 05/31/2001.
"RASS Release 7.0.0.0 System Support and Acquisition Plan", Accenture, 05/14/2001.
"RASS Release 7.0.0.0 Functional Requirements Document", Accenture, 05/14/2001.
"RASS Release 7.0.0.0 Data Requirements Document", Accenture, 05/14/2001.
"RASS Release 7.0.0.0 System Security and Privacy Plan", Accenture 05/14/2001.
"RASS Release 7 Multifamily Functionality Business Requirements Document (FINAL)", Version 1.1, KPMG, 04/25/2001.
"FY2001 Resident Assessment Risk Assessment (Update)", Accenture, 05/15/2001.
"FY2001 Resident Assessment Feasibility Study (Update)", Accenture, 05/15/2001.
"FY2001 Resident Assessment Cost/Benefit Analysis (Update)", Accenture, 05/15/2001.

Release 7.0.0.0
"FY2001 Resident Assessment Project Plan (Update)", Accenture, 05/15/2001.
"FY2001 Resident Assessment Needs Statement (Update)", Accenture, 05/15/2001.

Release 6.0.0.0
"RASS Release 6.0.0.0 Test Results and Evaluation Report", Accenture, 05/04/2001.
"RASS Release 6.0.0.0 User's Manual", Accenture, 05/04/2001.
"RASS Release 6.0.0.0 Maintenance Manual", Accenture, 05/04/2001.
"RASS Release 6.0.0.0 Operations Manual", Accenture, 05/04/2001.
"RASS Release 6.0.0.0 Test Plan (Unit)", Accenture, 05/04/2001.
"RASS Release 6.0.0.0 Installation and Conversion Plan", Accenture, 05/04/2001.
"RASS Release 6.0.0.0 Training Plan", Accenture, 02/16/2001.
"RASS Release 6.0.0.0 Validation, Verification, and Testing Plan", Accenture, 02/16/2001.
"RASS Release 6.0.0.0 Database Specifications Document", Accenture, 1/19/2001.
"RASS Release 6.0.0.0 System/Subsystem Specifications Document", Accenture, 1/19/2001.
"RASS Release 6.0.0.0 Program Specifications Document", Accenture, 1/19/2001.
"RASS Release 6.0.0.0 Functional Requirements Document (Addendum)", Accenture, 01/19/2001.
"RASS Release 6.0.0.0 System Support and Acquisition Plan", Accenture, 12/15/2000.
"RASS Release 6.0.0.0 Functional Requirements Document", Accenture, 12/15/2000.
"RASS Release 6.0.0.0 Data Requirements Document", Accenture, 12/15/2000.
"RASS Release 6.0.0.0 System Security and Privacy Plan", Accenture 12/15/2000.
"Business Requirements Document for Project-Level Sampling (final)", Version 2.0, KPMG, 12/05/2000.
"RASS Release 6.0.0.0 JAD Session Results", Accenture, 11/20/2000.
"FY2001 Resident Assessment Risk Assessment", Accenture, 06/14/2000.
"FY2001 Resident Assessment Feasibility Study", Accenture, 06/14/2000.
"FY2001 Resident Assessment Cost/Benefit Analysis", Accenture, 06/14/2000.
"FY2001 Resident Assessment Project Plan", Accenture, 06/14/2000.
"FY2001 Resident Assessment Needs Statement", Accenture, 06/14/2000.
"Resident Assessment Functional Requirements Document", Version 1.0, Accenture, 06/02/1999.
"REAC Security Plan", Version 1.0, ATS, 11/19/1999.
"Public Housing Assessment Systems Final Rule", 24 CFR Parts 901 and 902, 1/11/2000.
"HUD ADP Documentation Standards: Directive Number 2400.15".
"HUD ADP Security Program: Directive Number 2400.24".
"HUD Records Disposition Scheduling for Automated Systems: Directive Number 2229.1".
"System Development Methodology, Release 6.01".
"HUD Business Resumption Plan".

1.3   Authorized Use Permission

REAC is susceptible to misrepresentation of information by individuals not authorized to submit data from the external users. To address this, Executive Directors will be mailed coordinator IDs to distribute appropriately. All external users will then apply for an ID, which will be sent to the coordinators. The coordinator will have rights to grant appropriate system access to the user of that entity.

<u>User Access</u>: The following lists requirements for managing user access:

- Public Housing Agencies (PHAs) – External entities will manage their users by 'delegating' access to submit information to REAC. If a user has not been delegated this authority by an entity, they will not be able to submit or view any RASS system information.
- Multifamily Housing (MFHs) - External entities will manage their users by 'delegating' access to view information to REAC.
- REAC – REAC users will be provided access to update the RASS system information as appropriate.
- Field Office – Field Office personnel will be provided access to execute certain reports within RASS.

<u>Security Functions</u>: Only authorized users will be able to submit information to the RASS system. REAC will have the ability to keep an audit trail of exactly who submitted information and any updates made to the data.

1.4   Points of Contact

1.4.1   Information

The following table lists Points of Organizational Contact (POC's) that may be beneficial for future reference.

Contact Name	Organization	Telephone Number
Vernette Elliott	HUD – Contracting Officer	202-708-1772 (ext. 7124)
Yvette Conner	HUD – GTR	202-708-1817 (ext. 2620)
Delton Nichols	REAC – RASS Project Manager	202-475-8795
Yangja K. Lee	REAC – RASS GTM/IT Manager	202-475-8772
Kevin N. Jones	REAC – RASS Assistant IT Manager	202-475-8761
Patrick Evans	BAH	offsite
Gautam Ijoor	QSSI	202-475-8644
Alex Rozental	QSSI	202-475-8634
Eugene Lubarsky	QSSI	202-475-8812
Robin Hilton	QSSI	202-475-8633
Deren Luo	QSSI	202-475-8812
Theresa Han	QSSI	202-475-8633
Robert Armstrong	QSSI	202-475-8634

Contact	Contact Information
RASS System Administrator	Delton Nichols, in coordination with the WASS subsystem, will facilitate RASS system administration as needed.
REAC Technical Assistance Center	1-888-245-4860

Contact	Contact Information
REAC RASS E-mail address	REAC_RASS@hud.gov
REAC Internet Site	http://www.hud.gov/offices/reac/index.cfm
REAC RASS Internet Site	http://www.hud.gov/offices/reac/products/prodrass.cfm
REAC Intranet Site	http://hudweb.hud.gov/po/reac
HUD Customer Service Center Branch	1-202-708-3300

1.4.2 Coordination

Coordination must occur among the following organizations to successfully implement RASS Release 8.4.0.0:

Organization	Support Function
Paradigm Soln./BAH	Development Coordination, Installation, Deployment
HUD IT	Implementation Coordination, Installation, Deployment
Mandaree/Pearson	3rd Party Contractor: Resident Communication/Survey Support
QSSI	Requirements, Design, Development, Testing, Maintenance, Technical Support /Operations, Project Management
REAC	Business Requirements Support, Project Management
WASS	Security

Listed below are the coordination dates that each Public Housing Assessment System (PHAS) must achieve in order to adhere to the February 11, 2005, release date.

Code Locked Date	Integration Test Start Date	Integration Test End Date	Final HARTS Request Submission Date	Release Date
12/21/2004	12/29/2004	01/25/2005	01/26/2005	02/11/2005

1.4.3 Help Desk

The REAC Technical Assistance Center (TAC) can be contacted with any questions or problems with RASS. The TAC can be contacted via email at http://www.hud.gov/reac/rass.html, or via telephone at 1-888-245-4860 Monday through Friday 7am to 6pm Eastern Time. In emergency situations, please refer to the contact information listed in section 1.4.1 Information.

1.5 Organization of the Manual

The Maintenance Manual presents information on the RASS system. It is written for personnel who are responsible for the maintenance of the computer programs and who need to understand the operating

environment, security, and control requirements. It describes the programs in technical detail to assist the maintenance programmer. The Maintenance Manual is divided into six sections:

- *1.0 General Information*: This section provides general information related to the maintenance of the RASS system.
- *2.0 System Overview*: This section provides information on the RASS system architecture and security considerations.
- *3.0 Environment*: This section defines the general characteristics of the system.
- *4.0 System Maintenance Procedures*: This section provides information about the specific procedures necessary for the programmer to maintain the collective software units that make up the system.
- *5.0 Software Unit Maintenance Procedures*: This section provides a detailed description of maintenance procedures for each software unit.
- *6.0 Database Maintenance Procedures*: This section provides the information necessary to maintain the databases of the system.

1.6   Acronyms and Abbreviations

The following table defines terms and acronyms used throughout RASS Release 8.4.0.0 SDM Define Phase Documentation.

Term	Definition
APP	HUD Annual Performance Plan
BAH	Booz-Allen & Hamilton
BOP	Business Operating Plan
BRD	Business Requirements Document
DCG	Development Coordination Group
FRD	Functional Requirements Document
FYE	Fiscal Year End
HA	Housing Agency/Housing Authority
HEREMS	Multi-family Housing Database
HUD	Department of Housing and Urban Development
HUDCAPS	HUD Central Accounting and Program System
HUDWeb	HUD's Intranet Web Site
JAD	Joint Application Development
MF	Multifamily
MFH	Multifamily Housing
NASS	Integrated Assessment Subsystem
NCS/Pearson	National Computer Services/Pearson
OMB	Office of Management and Budget
PDF	Portable Document Format
PHA	Public Housing Agency/Public Housing Authority
PHAS	Public Housing Assessment System
PIC	PIH Information Center
PIH	Public and Indian Housing

| Term	Definition
POC	Point of Organizational Contact
QSSI	Quality Software Services, Inc.
RASS	Resident Assessment Subsystem
REAC	Real Estate Assessment Center
REACS	Real Estate Assessment Center System
SDM	Housing and Urban Development System Development Methodology
SOA	Section of the Act
TAC	Technical Assistance Center (formerly the Customer Service Center)
TARC	Troubled Agency Recovery Center
TRACS	Tenant Rental Assistance Certification System
TBD	To Be Defined
UAT	User Acceptance Testing
WASS	Web Access Security System

2.0   SYSTEM DESCRIPTION

2.0 SYSTEM DESCRIPTION

2.1 System Architecture

The following is an overview and diagram of the equipment capabilities required for Release 8.4.0.0, as well as the equipment presently available, and the characteristics of any new equipment:

- The RASS application is housed on a web farm consisting of six UNIX-based Netscape Enterprise servers in a clustered configuration.
- PIH-REAC operates on two DELL 6300 Poweredge database servers with 800mhz Pentium Pro processors. Both servers have 4GB of RAM and 400GB of hard disk storage.
- The RASS client machines will be personal computers with modem or local area network web access.
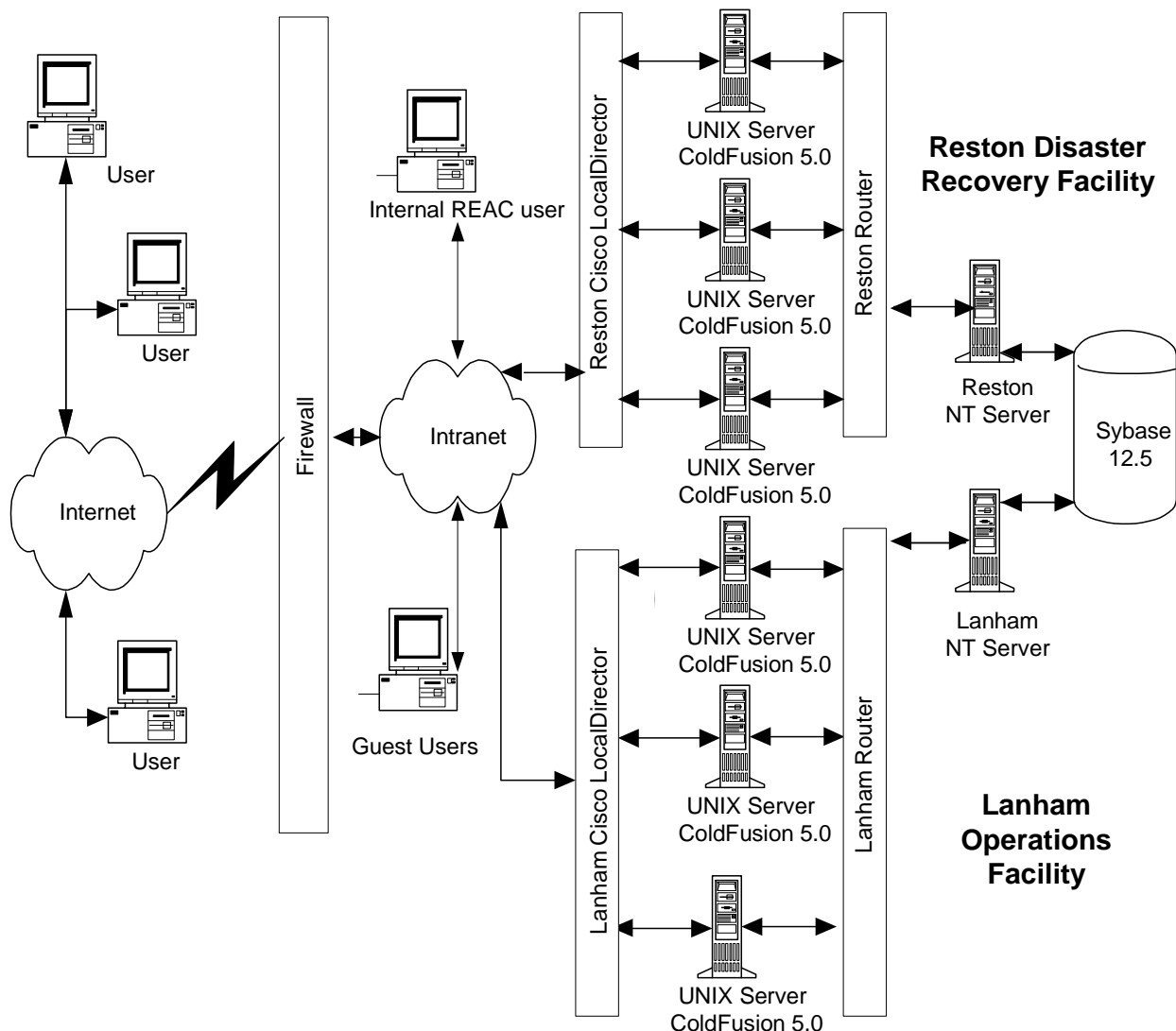
2.2   Security

Currently, automated control measures are in place at the application level for RASS. Within each RASS function, user ID security role and action assignments are validated to restrict inappropriate internal and external access to RASS.

The following RASS security table provides an overview of the security necessary for each RASS functional area. The table consists of the user/role, area, security protocol, and type of access. The user/role specifies the group that the security should be applied to. The area specifies the RASS function that the security should be applied for. The security protocol specifies the method that the user group should use to retrieve their user ID and get security. The type of access specifies the authority actions that the user group will have in the specified area. Reference the role/action code matrix for information specifying extent of write access (example: save versus certify or approve authority).

User/Role	Area	Security Protocol	Type of Access
PHA Submitter PHA Certifier	Unit Address Implementation Plan Follow up Plan	Secure Connection "M" user ID	Read/Write
PHA Submitter PHA Certifier	PHA Main Screen Media Packet	Secure Connection "M" user ID	Read
Guest REAC RASS Coordinator REAC RASS Manager REAC RASS Statistician	Internal Reports	HUD ADP Security "H or C" user ID No user ID is necessary for guest.	Read
REAC RASS Coordinator REAC RASS Manager	Implementation Plan Template Resident Communications Media Packet Survey Contents Sampling Parameters	HUD ADP Security "H or C" user ID	Read/Write
Guest	Implementation Plan Template Resident Communications Media Packet Survey Contents Sampling Parameters	HUD ADP Security "H or C" user ID No user ID is necessary for guest.	Read
REAC RASS Manager	Generate Score Generate Sample Score Results (includes adjustment)	HUD ADP Security "H or C" user ID	Read/Write
REAC RASS Statistician REAC RASS Manager	Sampling Parameters	HUD ADP Security "H or C" user ID	Read/Write
REAC RASS Coordinator REAC RASS Statistician	Score Results	HUD ADP Security "H or C" user ID	Read

User/Role	Area	Security Protocol	Type of Access
REAC RASS Manager REAC RASS Statistician	Survey Weight	HUD ADP Security "H or C" user ID	Read/Write
REAC RASS Coordinator REAC RASS Statistician	Score Results	HUD ADP Security "H or C" user ID	Read
REAC RASS Manager	PHA Access Dates PHA Decertification	HUD ADP Security "H or C" user ID	Read/Write
REAC RASS Coordinator REAC RASS Manager	Information to be provided to Survey Administrator	HUD ADP Security "H or C" user ID	Read/Write
REAC RASS Survey Administrator	Survey Administrator Communications	Secure Connection "I" user ID	Read/Write
REAC RASS Multifamily Housing Reviewer	Internal Multifamily Reports	HUD ADP Security "H or C" user ID	Read/Write
REAC RASS Multifamily Owner or Managing Agent	External Multifamily Property Selection External Multifamily Survey Section Results	Secure Connection "M" user ID	Read/Write

3.0 ENVIRONMENT

3.0   ENVIRONMENT

The following sections outline the Application Environment for RASS Release 8.4.0.0 including equipment environment, storage, and software environment.

3.1   Equipment Environment

The following is an overview and diagram of the equipment capabilities required for RASS Release 8.4.0.0, as well as the equipment presently available:

The following is a table of specifications for the Web cluster currently running the RASS application:

SW/HW	Hudapps5	Hudapps6	Hudapps8	Hudapps9	Hudapps10	Hudapps11	Hudapps12	Hudapps13
OS	Solaris 8							
Application server	Allaire's ColdFusion 5.0							
Web server	iPlanet Web server 7							
Cluster S/W	Interwoven's TeamSite 5.5.2 & OpenDeploy 5.5.1							
LDAP	Netscape Directory Server 4.1.6SP1	Netscape Directory Server 4.1.6SP1	Netscape Directory Server 4.1.6SP1	Netscape Directory Server 4.1.6SP1	(none)	(none)	(none)	(none)
Machine Type	Sun Enterprise 3500	Sun Enterprise 3500	Sun Enterprise 450	Sun Enterprise 3500	Sun Enterprise 420R	Sun Enterprise 420R	Sun Enterprise 420R	Sun Enterprise 420R
CPU	4X336MHz	4X336MHz	4X400MHz	2X336MHz	4X450MHz	4X450MHz	4X450MHz	4X450MHz
RAM	1GBRAM	1GBRAM	1GBRAM	1GBRAM	4GB RAM	4GB RAM	4GB RAM	4GB RAM
HDD	8X9GB	8X9GB	36GB	2X9GB 1X18GB	2X38GB local, SAN	2X38GB local, SAN	2X38GB local, SAN	2X38GB local, SAN

3.2 Storage Requirement

The estimated data storage requirements are as follows:
- PHA Survey Data – project_survey_response records: 270K per year
- PHA Survey Data – resident_survey_response records: 14M per year
- PHA-level section scores: 19K per year (same as now)
- PHA-level question scores: 150K per year (same as now)
- Project-level section scores: 70K per year (plus an additional 15K if we were to store the group_2 total)
- Project-level question scores: 750K per year
- Project-level response rate numerators and denominators: 15K per year
- Multifamily Survey Data – project_survey_response records: 130K per survey cycle
- Multifamily Survey Data – resident_survey_response records: 3M per survey cycle
- Multifamily property_level section scores: 10K per survey cycle
- Multifamily property_level question scores: 75K per survey cycle
- PHA Unit Addresses – resident_survey_unit_address records: 225M per year

- PHA Mirror Image Report – survey_response_percentage: 1000M per year
- Business Calendar – running_calendar: 10 kb total
- Demographic reference data – demographic_code_ref: 10 kb total
- Nationwide demographic score – nationwide_demographic: 50 kb per year
- RASS general purpose (reporting) table – rass_line_item: 1225 kb per year

Counts of Surveys records processed – processes_survey_counts: 702 kb per year

3.3   Support Software Environment

The following table details the software required to support the RASS environment:

Application	Description
ColdFusion Studio 5.0	Application development software
PVCS Tracker	Issue tracking database application
PVCS Version Manager	Software version control application
SQL-Programmer	Interface to the Sybase database
SQL-Advantage	Interface to the Sybase database
Sybase	Database management software
SSH-FTP	Program to upload new software modules to environment

4.0   SYSTEM MAINTENANCE PROCEDURES

4.0 SYSTEM MAINTENANCE PROCEDURES

4.1 Responsibilities

The following table below lists the organizations and personnel responsible for RASS software maintenance.

Organization	Function	Personnel
QSSI	System Maintenance	Gautam Ijoor, Alex Rozental, Eugene Lubarsky, Robert Armstrong, Deren Luo
HUD REAC	Project management	Delton Nichols
HUD REAC IT	Technical Support /Operations	Kevin Jones, Yangja Lee
HUD IT	Testing, Installation	HUD IT
HUD DCG	Database Support	John Zuber

4.2 Conventions

Please reference the Configuration Management Plan for details on conventions.

4.3 Performance Verification Procedures

RASS monitors screen and stored procedure performance at several stages in the system development lifecycle to ensure that HUD performance standards are met. Performance first validated by the Development Team during the Unit Test process. In this stage, screen and stored procedure processing times are monitored using the Cold Fusion debugger. If performance requirements are not satisfied, the screen or stored procedure is modified before entering System Test. Performance is again monitored during System Test where testers review processing times using the Cold Fusion debugger.

System performance is also validated in the production environment, and that task is the responsibility of the DCG. RASS also monitors the production ColdFusion logs for performance.

4.4 Error Conditions

The following error messages are displayed to the user when interfacing with RASS Release 8.4.0.0 functionality. Please reference Section 2.3 Design Details of the RASS Release 8.4.0.0 Program Specifications document for additional logic details on error messages produced by the system.

RASS Release 8.4.0.0 New Error Messages			
Error	Error Description	Error Source	Error Correction
User saves an Implementation Plan activity date outside of the allowed window.	The error message is displayed to the user stating that the activity dates must fall within the specified range.	Review/Edit PHA Assessment Access Dates screen	The dates will not be saved and user will be returned to the Review/EditPHA Assessment Access Dates screen.
User saves Implementation Plan Activity window without a Certification window.	The error message is displayed to the user stating that the Certification dates are required to save.	Review/Edit PHA Assessment Access Dates screen	The dates will not be saved and user will be returned to the Review/Edit PHA Assessment Access Dates screen.
User saves Implementation Plan Certification window without an Activity window.	The error message is displayed to the user stating that the Activity dates are required to save.	Review/Edit PHA Assessment Access Dates screen	The dates will not be saved and user will be returned to the Review/Edit PHA Assessment Access Dates screen.
User saves or certifies Component Access Dates after the threshold.	The error message is displayed to the user stating that the PHA cannot be saved or certified after 11:59:59PM EST.	Implementation Plan screen (external user)	The changes will not be saved or certified and user will be returned to the Implementation Plan screen.

For error messages corresponding to previous releases, please refer to the maintenance manuals for that release.

4.5 Maintenance Procedures

Please reference the Installation & Conversion Plan (Release Notes) for detailed information on the Maintenance Procedures.

5.0   SOFTWARE UNIT MAINTENANCE PROCEDURES

5.0 SOFTWARE UNIT MAINTENANCE PROCEDURES

5.1 Consolidated Unit List

Please reference the RASS Release 8.4.0.0 Program Specification for the details of the software units, and the RASS Release 8.4.0.0 Installation and Conversion Plan for a list of files.

1. At Risk PHA Report
2. Edit PHA Scores Screen
3. Edit Survey Section Scores Screen
4. Demographic Report
5. Edit PHA/Section Score Stored Procedure
6. Edit PHA/Section Score Stored Procedure
7. Resident Assessment - RASS Main
8. Resident Assessment - Review/Approve PHA Scores
9. Review/Edit Assessment Access Dates
10. Resident Assessment – Implementation Plan
11. RASS Get PHA Scores Stored Procedure
12. Get Flagged Category Stored Procedure
13. Resident Assessment - PHA General Information
14. RASS Get PHA Information Stored Procedure
15. RASS PHA History Report Stored Procedure

5.2 RASS Software Units

5.2.1 Description

Please reference Section 1.7 Design Details of the RASS Release 8.4.0.0 Program Specifications document for information on the description of each software unit.

5.2.2 Functions

Please reference Section Design Details of the RASS Release 8.4.0.0 Program Specifications document for information on the functions being performed by each software unit.

5.2.3 Input

Please reference Section Input of the RASS Release 8.4.0.0 Program Specifications document for information on the inputs for each software unit.

5.2.4   Processing

5.2.4.1   Initiation Procedures

Not applicable. There are no initiation procedures for the RASS system.

5.2.4.2   Core Processing Procedures

Please reference Section 2.3 Design Details of the RASS Release 8.4.0.0 Program Specifications document for information on the core processing procedures for each software unit.

5.2.4.3   Branching Conditions

Please reference Section 2.3 Design Details of the RASS Release 8.4.0.0 Program Specifications document for information on the branching conditions associated with each software unit.

5.2.4.4   Restrictions

Please reference Section 2.3 Design Details of the RASS Release 8.4.0.0 Program Specifications document for information on the restrictions of each software unit.

5.2.4.5   Exit Requirements

Please reference Section 2.3 Design Details of the RASS Release 8.4.0.0 Program Specifications document for information on exit requirements for each software unit.

5.2.4.6   Communications

Please reference Section 2.3 Design Details of the RASS Release 8.4.0.0 Program Specifications document for information on the communications of each software unit.

5.2.4.7   Output

Please reference Section 2.3 Design Details of the RASS Release 8.4.0.0 Program Specifications document for information on the output produced by the each software unit.

5.2.4.8   Unique Features

Please reference Section 2.3 Design Details of the RASS Release 8.4.0.0 Program Specifications document for information on any unique features for executing the software unit code.

5.2.5   Data Structures

Please reference Section 2.3 Design Details of the RASS Release 8.4.0.0 Program Specifications document for data structure information associated with each software unit.

5.2.6   Verification Procedures

The HUD IT Test Center conducts a performance test of the software unit using the Silk Performer tool, and also utilizes Test Center scripts run through multiple passes.

5.2.7   Listings

Please reference Section 5.1 Consolidated Unit List for detail on the location of the software listing.

5.2.8   Interfaces

Please refer to Section 3.4 Software Interfaces of the RASS Release 8.4.0.0 System/Subsystem Specifications document for information on RASS software unit interfaces.

6.0 DATABASE MAINTENANCE PROCEDURES

6.0   DATABASE MAINTENANCE PROCEDURES

6.1   REACS Database

Please reference Section 2.0 of the RASS Release 8.4.0.0 Database Specifications for detailed information on the REACS database.

6.1.1   General Characteristics

Please reference Section 2.5 of the RASS Release 8.4.0.0 Database Specifications for detailed information on the REACS database.

6.1.1.1   *Permanency*

The REACS database contains both static data that RASS software units can reference and dynamic data that may be changed or updated during system operation.

6.1.1.2   *Storage*

Please reference Section 3.3 of the RASS Release 8.4.0.0 Database Specifications for detailed information on the REACS database storage.

6.1.1.3   *Restrictions*

Please reference Section 3.6.1 of the RASS Release 8.4.0.0 Database Specifications for detailed information on the REACS database restrictions.

6.1.2   Organization and Detailed Description

6.1.2.1   *Structures*

Please reference Section 3.6.3 of the RASS Release 8.4.0.0 Database Specifications for detailed information on the REACS database structures.

6.1.2.2   *Elements*

Please reference Section 3.6.3 of the RASS Release 8.4.0.0 Database Specifications for detailed information on the REACS database elements for the RASS system.

6.1.2.3   *Expansion*

Please reference Section 3.6.3 of the RASS Release 8.4.0.0 Database Specifications for detailed information on the REACS database expansion provisions.

6.1.2.4 Contingencies

Please reference Section 3.4 of the RASS Release 8.4.0.0 Database Specifications for detailed information on the REACS database contingencies.

6.1.2.5 Partitioning

Please reference Section 3.5 of the RASS Release 8.4.0.0 Database Specifications for detailed information on the REACS database partitioning.